Application No.: 10/622,774

AMENDMENTS TO THE SPECIFICATION

Please replace page 23 of the specification with the following heading and paragraph:

Abstract of the Invention

[[]]A chimeric gene comprising an isolated nucleic acid molecule encoding a delta 12-fatty acid epoxygenase enzyme and transgenic plants containing the chimeric gene are described. Expression of the chimeric delta 12-epoxygenase gene leads to altered levels of fatty acids in transformed cells.

Please replace all the full paragraphs under the heading, Brief Description of the Drawings on page 6 of the amended specification filed January 20, 2004 with the following rewritten paragraphs:

FIG. 1: The nucleotide sequence comprising the cDNA encoding a *Stokesia laevis* fatty acid epoxygenase (SEQ ID NO:1).

Figure 2. The deduced amino acid sequence of *Stokesia laevis* fatty acid epoxygenase (SEQ ID NO:2) derived from the nucleotide sequence SEQ ID NO:1.

Figures [[3A-3C]] <u>1A-1C</u> show an alignment of the *Stokesia laevis* epoxygenase cDNA with *Veronia* (SEQ ID NO:9) and *Crepis* epoxygenase cDNA (SEQ ID NO:10).

Figures [[4A-4D]] <u>2A-2D</u>: GC-MS analysis of fatty acid derivatives from transgenic *Arabidopsis* seeds. (A) Chromatograms from transgenic *Arabidopsis* transformed with pCAMBIA1202 comprising the cDNA from *Stokesia laevis*. (B) Chromatograms from *Arabidopsis* seeds transformed with empty vector, pCAMBIA 1201 as a control. (C) Mass spectrum of the compound giving rise to peak 5 at 13.94 min. in chromatogram (A), and (D) a standard vernolic acid. M/z, mass-to-charge ratio.

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Figures [[5A-5B]]: <u>3A-3B</u> show (A) elution of Vernolic acid from a column at 13.957 min. and (B) a control.

Please replace the third full paragraph on page 14 of the specification with the following:

The ATG start site of the open reading frame for 378 amino acids (SEQ ID NO:2) is at 93 and the stop codon is at 1227.

Please replace the second full paragraph under the heading Example 4 on page

15 of the specification with the following:

To verify the enzymatic activity of the gene product, the protein was expressed in seeds of *A. Thaliana* plants. In seeds of transgenic *Arabidopsis*, vernolic acid was detected with GC-MS, but no vernolic acid was detected in control plants transformed with the empty vector [[FIG. 3]](Figures 1A-1C).

Please replace the first full paragraph on page 17 of the specification with the following:

A soybean line expressing the *Stokesia* epoxygenase gene was generated using the methods described above. The transferred soybean clearly shows elevated vernolic acid relative to control soybean somatic embryos. [[FIG.]]Figures [[4]]3A-2B. Vernolic acid elutes from the column at 13.957 min. as designated by the arrow in [[FIG. 4]]Figures 3A.